Recreational Fisheries Workgroup

SEDAR 68 – South Atlantic and Gulf of Mexico Scamp (Yellowmouth Grouper)

September 24, 2020
Data Workshop Plenary III

Remaining Tasks for the RecWG after 2nd Plenary

- Investigate uncertainty of SRHS and total recreational landings – **DONE; DRAFT WORKING PAPER 95% COMPLETE**

- Document SRHS discards method approved in plenary II- **WORKING PAPER IN PROGRESS**

- Maps of total landings, discards, and effort - **DONE**

- Data Workshop Report- **DRAFT REPORT 85% COMPLETE**

(Gulf of Mexico and South Atlantic fleet structures will be determined at the assessment stage.)

Uncertainty

SRHS SCA/YMG Uncertainty

- Potential sources for uncertainty in SRHS
  - Form changes over time
  - Trends in compliance over time and area (possibly due to regulations)
  - Correction factors (k-factors): SRHS adjustment for non-reporting based on observed effort vs reported effort
    - Calculated at the vessel level for each month from Headboat Activity Reports (HAR)
    - K-factor * reported landings= total landings for each vessel and month

SRHS SCA/YMG Uncertainty

- SRHS Landings: $$\hat{C}_g = \sum_{a=1}^{n} \sum_{m=1}^{n_a} \sum_{v=1}^{n_{am}} \tilde{y}_{amv} * K_{amv}$$

  - $\tilde{y}_{amv}$ = reported+imputed logbook landings

  - K_{amv} = K-factor = $\left(\frac{N.logbook}{N.trips} \right)^{-1}$

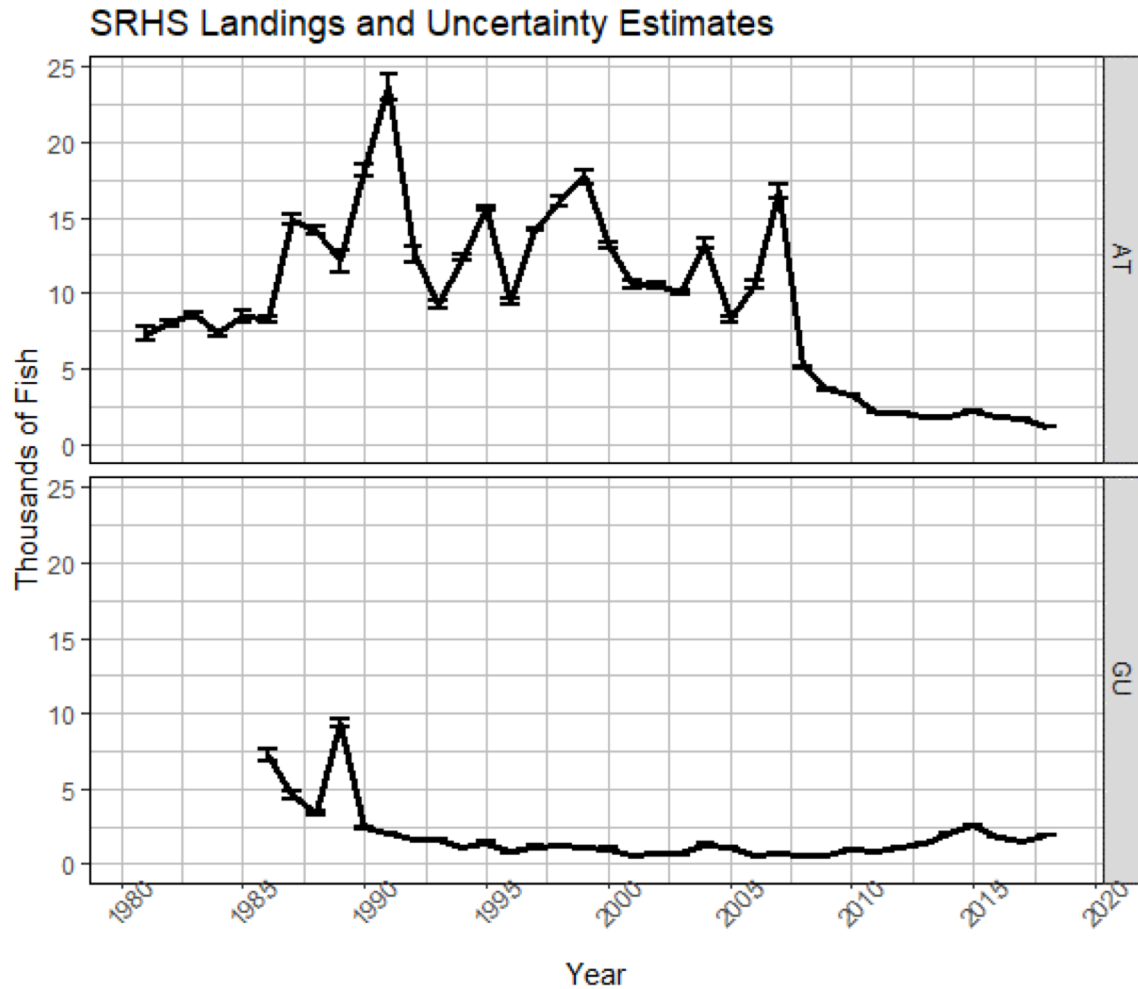 - a = area, m = month, v = vessel

SRHS SCA/YMG Uncertainty

- SRHS Landings Uncertainty:

$$\hat{V}(\hat{C}_g) = \sum_{a=1}^{n} \sum_{m=1}^{n_a} \left(\frac{N_{am}^2}{n_{am}} \right) \frac{\left(1 - \frac{n_{am}}{N_{am}}\right)}{n_{am} - 1} \sum_{v=1}^{n_{am}} \left((y_{amv} * K_{amv}) - \bar{C}_{amv} \right)^2$$

- y_{amv} = reported logbook landings
- N_{am} = actual number of active SRHS HBTs
- n_{am} = number of SRHS HBTs with reported catch

SRHS SCA/YMG Uncertainty

SRHS Landings and Uncertainty Estimates

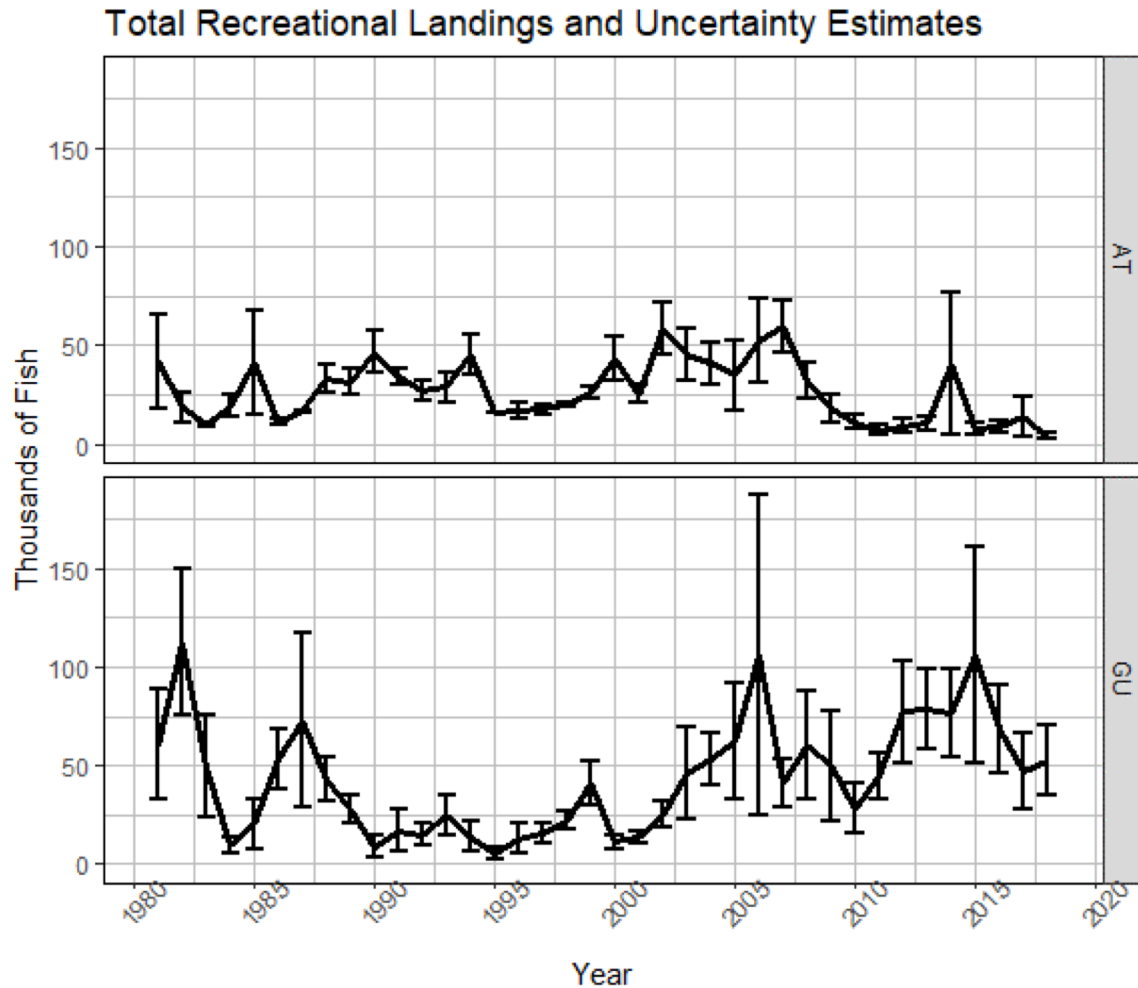# Total recreational SCA/YMG Uncertainty

- Total Rec Landings:

$$\hat{C}_T = \hat{C}_{MRIP} + \hat{C}_{SRHS}$$

- Total Rec Uncertainty:

$$\hat{V}(\hat{C}_T) = \hat{V}(\hat{C}_{MRIP}) + \hat{V}(\hat{C}_{SRHS})$$

$$\widehat{CV}_T = \frac{\sqrt{\left(\widehat{CV}_{MRIP} * \hat{C}_{MRIP}\right)^2 + \left(\widehat{CV}_{SRHS} * \hat{C}_{SRHS}\right)^2}}{\hat{C}_T}$$

Total recreational SCA/YMG Uncertainty

Total Recreational Landings and Uncertainty Estimates

Questions?